ERIC PROJECT

A STUDY OF THE PERCEPTIONS OF SECONDARY SCHOOL LEARNING ENVIRONMENT BY THE STUDENTS, STAFF AND ADMINISTRATORS

Principal Investigator
J.S.GREWAL

Co-Investigator
I.D.GUPTA

Project Fellow
SUNITEE KHARE
(Srivastava)

National Council of Educational Research and Training
REGIONAL COLLEGE OF EDUCATION
BHOPAL

1988

PREFACE

Education and environment are multiply related. One, education as a means for protection of environment; two, environment as a source of learning materials and activities for education and three, environment as a psychic force facilitating or hindering educational activities. The present investigation was conceived nearly a decade ago a part of a comprehensive project which was initiated by the college both in environmental studies and learning environment. The project was approved by the ERIC as an investigation into the learning environments prevailing in the secondary school system. The system has been under acute criticism since long. Now the NPE-1986 has initiated its reconstruction in many ways. The focus from teacher-centred education wherein the role of the teacher and the school as a whole is to be viewed chiefly as of a facilitator of learning. Investigations into the nature and structure of learning environments in schools gained further significance in this context.

The investigators are regretfully aware that the project-report was overdue, field testing being completed much earlier. With a gap of time the research data might appear a bit old. However, it is felt that the educational scene has not changed much in general; efforts are certainly initiated since 1986 to improve the situation. It is, therefore, our fond hope that the findings of the present study regarding the learining environment in schools may add another glimpse into the phenomenon. Studies in learning

environment have generally been conducted on students' perception; this investigation has attempted (in a delimited manner) to extend the area from the point of view of teachers who are to play a major role in reshaping our educational system.

The project was funded by the ERIC, NCERT. The investigators owe their gratitude to the ERIC for funding; and all the subsequent help and guidance, especially for the completion of this project.

The investigators also acknowledge the help given by Smt.Suniti Khare, JPF, in the collection and compilation of data.

Bhopal

J.S.Grewal
I.D.Gupta

CONTENTS

Chapter	Title	Pages
I.	The Problem	1-16
II.	Research Problems Questions and Tool	17-28
III.	Methodology	29-32
IV.	Findings and Interpretations	33-48
V.	Conclusions and Implications	49-52
	Bibliography	i-v
	Appendix	vi-xi

CHAPTER I

THE PROBLEM

1. INTRODUCTION

1. 1.1 Environment Defined : Environment, as defined in the Random House Dictionary (1967,p.467) is 'aggregate of affecting the existence or development of some or something' and by Bloom (1964, p.187) as the conditions, force and external stimuli which impinge upon the individual. These may be physical, social, as well as intellectual forces and conditions. ... Somewhere between the total environment and the specific interaction is the view of the environment as a set of persisting forces which affect a particular human characteristic.

The early psychologists, like Fechner and Wundt,had conducted studies on perception with experimental approach which is a distinguishing characteristic of scientific psychology. Helen Ross (1974) pointed out that quite surprisingly we know little about man's "perceptual ability" in real life situation. Cauter and Stringer (1975) do not agree with the aggregate view of environment. They point out : "To say that the environment is a collection of stimuli is to miss the point. The perception of the environment derives as much from the structure of the stimuli in it as from the properties of the stimuli themselves"(p.7).

The classroom learning environment was conceptualized by Anderson and Walberg (1974) as one of the four components of learning process namely; learning, instruction, aptitude (ability) and overall environment. Anderson and Walberg

suggested that "environment has the same relation to instruction as ability has to achievement".

1. 1.2 Origins and Development of Environmental Research :

The first major attempt to assess the impact of the physical environment upon behaviour, outside the laboratory conditions, were the Hawthorne investigations which were conducted during the late 1920's. The main purpose was to use the environment and other aspects of the factories so as to ensure maximum productivity. During the 1930s there was emphasis on the comparative impact studies on the role of heredity and environment. It was followed by the interactional studies. The investigators found that social milieu is more important than merely the availability of favourable physical conditions which influence behaviour.

Research studies conducted during the late 1950s and early 1960s had a focus on the study of institutional environments of home, school, colleges, universities, health and other organisations. Physical conditions do shape the behaviour of individuals and societies. Winston Churchill, the war time Prime Minister of Britain, pointed out, "We shape our buildings and afterwards our buildings shape us" (Hansard, 1943). This had a reference to the impact of physical conditions upon human behaviour. As pointed out above, interactional studies, having a focus on the interaction of individuals and physical settings became common during 60s. Two approaches to the study of environments emerged during this period. A group of studies were initiated in the USA at the University of Chicago which emphasized the individual's interaction with home and school environments (Bloom,1963).

The interactional scores, derived from these studies, were correlated with scores on achievement and intelligence tests. The second group of studies were started by George Stern and Robert Pace (1960,1963) which dealt with the perceptual aspect of learning environment. Most of the work that followed after the work of Stern and Pace dealt with the perceptual aspect of learning environment of College and where College and University Environment Scale (CUES) was used . A few studies were also conducted by using the High School Characteristics Index (HSCI). These studies had impact on the researches in learning environments in India also. Notable among these were the environmental measures developed by Indirasen (1973) - Organizational Atmosphere Questionnaire (OAQ); Rao (1972) - Medical College Environment Inventory (MCEI); Joshi and Chauhan - Activities Index (AI); and Bayeti (1970) - Organisational Climate Descriptive Questionnaire (OCDQ); Grewal (1972) - Vocational Environment Scale (VES). Most of all these environmental measures are based on Murray's (1938) classification of personality needs such as need for achievement, need for affiliation etc. The students or persons living or studying in a particular environment percive the environment in terms of their personality needs. Of late, Walberg, Singh and Rasher (1977) have developed Learning Environment Inventory (LEI) which has been used in a number os studies. Saxena (1985) has used LEI in his doctoral study on secondary school studies. Realising the inadequacy of studies on school learning environments, the present project was undertaken to explore

and study the learning environments of schools with the help of properly developed tools. Originally, the perceptions of learning environments of students, teachers and administrators were proposed to be studied but due to methodological difficulties such as development of separate environment scales, variety in the learning environment, rareness in the occurence of identical environments and implementation of the findings the study was confined to teachers only.

1.2 EARLIER STUDIES

George Stern (1960) constructed an instrument called High School Characteristics Index (HSCI) for studying the school learning environment. The other three instruments developed by Stern and his Co-worker, particularly by Robert Pace, for the measurement of institutional environments were Activity Index (AI), College Characteristics Index (CCI), Evening College Characteristics Index (ECCI) College and University Environment Scale (CUES) and the Organisational Climate Index (OCI).

Alexander's (1961) study on the environments represent the combined influences of home and school, where as it the College level the direct effect of the School environment was studied.

His study centered around four major points :-

1. The value placed on school learning by parents and students.
2. The reinforcement of school learning by the home.
3. Economic returns from education.

4. Morale and training of the school staff.

Herr (1965) made an extensive study of the relationships between scores on the HSCI and other variables at a single high school, concluding that there was an apparent congruence between the press suggested by the Index and that inferred from other sources. He also found variations in HSCI response as a function of student sex, grade level, IQ, father's education, mother's education level of extracurricular participation and grade point average.

A some/what different approach to the study of environments related to educational achievement was undertaken by Dave (1963). He hypothesized, on the basis of literature, that the home environment relevant to educational achievement might be studied in terms of six variables :
(1) Achievement Press (2) Language models in the home
(3) Academic guidance provided in the home
(4) The stimulation provided in the home to explore various aspects of the larger environment. (5) The work habits emphasized in the home. (6) The intellectual interests and activity in the home.

Dave found that, in general, the correlations were highest with the test of word knowledge and reading and they are lowest with spelling and arithmetic computation. This suggests that the home has the greatest influence on the language development of the child and the least influence on skills primarily taught in the school.

Similarly Wolf (1963) attempted a systematic study of the relation between environmental process variables and general intelligence. Starting from the literature on the effects of environments on intelligence, he hypothesized that 13 process variables could be used to describe the interactions between parents and children in so far as intelligence development is concerned.

Eubank (1965) studied environment for five years of and published three reports. The first (Michigan 1965 a), is a collection of annotated considerations of about 600 documents upto 1964 which the project staff considered to be significant, and pioneering studies. As expected, the researchers found a notable lack of information concerning the effects of total environment on the learning process, but selected abstracts to provide a useful collection of facts about different aspects summarised findings and appraise the fragmented state of knowledge in the field upto that time. The third volume (Michigan,1965 c) attempts to provide guidelines for environmental research and for the processing of the informating which environmental design requires. (Michigan, 1965 d). The subject had arisen because a number of elementary schools were being built underground in New Mexico and elsewhere to serve as followed Shetters, Historically, Windows have been needed to provide ventilation, day lighting and viewing function prevents windows from being wholly absolete.

Stern (1966) developed an objective self-report test titled College Characteristics Index (CCI). It was developed later to measure the characteristics of intellectual climate in Colleges and Universities.

Mitchell (1968) administered the HSCI to the senior high classes of eleven high schools in a large metropolitan area. His results were interpretted as a challenge to the validity and discriminative capability of environmental assessment techniques based on student perceptions.

Walberg and Anderson (1968) using pupil perception technique to study classroom climate concluded that different perceptions of classroom climate activity. The measure of classroom social climate began with the evaluation and research on Harvard Project. Another instrument named "The Learning Environment Inventory" (LEI) was developed in 1969 for research purposes at Harvard University by Herbert J. Walberg and Welch in the year (1969). He reported study conducted with the LEI on 150 high school classes. It was found that more stimulating environment produced more diversity rather than teaching traditional courses, by providing the stimulating environment. Cliques and friction among the class member were perceived to be less frequent and the classes viewed as more democratic and cohesive.

Walberg (1968) successfully devised another instrument called 'The classroom climate questionnaire' which included 18 scales selected on the basis on factor analysis and considered meaningful for the description of school class groups. Climate scores were found to be related to the personality of the class-teacher, the cognitive, attitudinal and behavioural characteristics of pupils within the class and climate scores themselves were significantly related to measures of pupil learning for both individual and for classes.

Anderson, Walberg and Welch (1969) reported a study conducted with the learning environment inventory. The sample included 150 High School classes. The statistical tests revealed that HPP was seen as less difficult more diverse and as providing a more stimulating environment than other courses; cliqueness and friction among class-members were perceived to be less frequent among HPP and that their classes were found as more democratic and cohesive than those of the other groups.

Walberg (1969) using 149 physics classes and Anderson and Welberg (1972) using 61 Montreal classes in several subject areas both found smaller class to be significantly higher on cohesiveness and difficulty. While small groups of many kinds are generally perceived as more cohesive, it is speculated that smaller classes are perceived as more difficult because students are less able to hide their low personal productivity. The LES may be touching those aspects of environment that stimulate educational growth that are not well measured by conventional achievement tests.

Anderson (1970) utilized class-measures on the LEI and related them to cognitive, affective and behavioural measures of student gains in learning. This study illustrated that some environments are best for students of high I.Q. level while other environments are more appropriate for other types of students.

Walberg (1971), examined the relationship of a large number of student and class characteristics to six learning criteria. His sample included over 150 classes in the Harvard Project Physics (HPP). Evaluation and the analysis

revealed positive correlations between class-difficulty and cognitive learning and satisfaction with measures of interest. Negative correlations were reported between class-friction and perceived apathy and the various measures of learning. For Apathy and Cliqueness there were negative relationships among measures of behavioural learning which included science actiwities persued by students.

Little (1971) used the My Class Inventory (MCI) in several studies including one which involved over 100 educably mentally retarded children aged 6-12. He reports that many of the children lacked any real sense of what was going on around them.

Walberg, Sorenson and Fishbarck (1972) adapted the learning environment inventory for use in the middle grades to measure that school environment and administered the ssb scales to fifth grade students of 40 Wisconsion High-Schools. The analysis revealed that the higher the socio-economic levels of the school, the less Competitive the High SEs children see the school.

Kumar (1972) studied the social climate in schools and characteristics of the pupils with a view to examining the effects of social climate of school on the student behaviour in terms of their personal adjustments, value orientation and attitude towards certain educational objectives and School achievement.

The Walberg and Anderson (1972) study included 64 classes in eight different subjects : Mathematics, Physics, Chemistry,

Biology, English, History, Geography and French. It was found that the competitiveness was positively correlated with learning in mathematics classes and bore an equally high negative correlation with achievement in physics classes.

The classroom learning environment was conceptualised by Anderson and Welberg (1974) as one of the four components of learning process namely, learning, instruction, aptitude (ability) and overall environment. Anderson and Welberg suggested that "environment has the same relation to instruction as ability has to achievement."

Achievement, as a function of pupil perceived learning environment of the class X, was studied by Singh (1976). It was found that the students learn more if the classroom is cohesive. The physical environment influences pupils, scholastic attainments, satisfaction of the classroom activities enhance their learning and group goals are found positively related to pupils' academic achievement. Moos (1976) suggested that vastly different learning environments of the school can be described by common or similar sets of dimensions.

Teacher-teacher relationships have been suggested as an important learning environment variable-Rutter and Others (1976) and Phi Delta Kappa (1980)studies indicated that in ideal schools teacher co-operation and concern are high. Wynne (1980) found that a positive school spirit (climate) was associated with the amount of socialization among the faculty members. Downing (1978) reported that opportunities

for and encouragement of cooperative behaviours are significant environmental conditions for learning. The results of studies conducted in British setting particularly by Fraser (1959), Wiesman (1967), Plowden (1967) and Marjoribanks (1979) point out that scores obtained on family environment have moderate correlations with cognitive performance.

Conclusion :

Several comprehensive reviews summarised in this chapter span over the past two decades in the conceptualisation, assessment and study of perceptions of psychological aspects of classroom learning environments. Past studies which have used pupil perception of classroom environment as criterion variables have revealed meaningful differences between the classes following different curriculum materials and interesting variations in classroom environments according to class size, subject matter and grade level. But the strongest tradition in past classroom environment research has indicated consistently that pupils' classroom environment perceptions account for appreciable amounts of variance in learning outcomes, often beyond that attributable to pupil characteristics such as pretest performance,general ability or both.

A large proportion of prior classroom environment studies have been confined to samples of pupils of the secondary school level and to assessing perceptions of what classrooms are actually like. It is only very recently that researchers also have assessed what pupils prefer their classroom to be like. As for teachers and administrators of educational

institutions, such studies are not many.

Most of these studies have had a focus identifying the components of the learning environments and their influence over pupil characteristics including achievement. Studies were lacking on the perceptions of teachers and others associated with education of children. This project was, therefore, conceived in this context.

1.3 NEED OF THE PRESENT STUDY :-

A number of empirical studies on learning environment of the classroom and school have pointed out towards the following conclusions :-

1. Perceptions of the social environment because of their predictive validity, convenience and avoidance of the content comparability problems of the achievement tests in classroom research, can serve as useful criteria in educational research and evaluation.

2. Classroom social climate includes measurable properties that have significance for research and classes as social groups. These properties include interpersonal relationship among pupils, relationships between pupils and their teachers, relationship between pupils and both the subject studied and the method of learning and finally pupils' perceptions of the structural characteristics of the class. Representative dimensions i.e. of the interpersonal relations includes cohesiveness and friction among class-mates. The extent to which pupils have formal rules to guide their behaviour as well as the extent of democratic policy making, disorganisation, and teacher favouritism of some pupils over others, constitue dimensions of teacher-pupil interaction. The pupils'

perceptions of the speed of the class, the difficulty of the subject content and the amount of diversity in classroom activities relate to the subjects and methods of study. Among structural characteristics are the acceptance of common goals towards which activities are directed, pupils' perceptions of their physical environment, and the degree of stratification of the class into friendship cliques.

3. One of the important theoretical foundations provided for the present study in that of Bloom (1964) who proposed that the learning environment might be regarded as providing a net-work of forces and factors which exercised a considerable influence on the individuals. He also suggested that development of a particular characteristics was related to a sub-set or sub-environments of the total set of environmental forces.

4. Similarly, Walberg (1976,1982) in his survey of studies summed up the status of learning environment research. He made a statistical analysis of experimental effects and correlations in extensitive empirical literature of the last decade in science and other subjects. He made an analysis of 35 quantitative research theses by 80 investigators. It served considerable evidence for positive relations of learning with seven factors. But studies on teachers and educational administrators were found to be lacking.

5. Research studies in India on school learning environment (Sehgal, 1975; Rao, 1977, Saxena 1983) have also emphasized the need to study the effect of learning environment on student characteristics. Grewal (1972) explored the dimensions of vocational environment.

6. Sehgal (1975), in her study, summed up to status of environmental research in Indian setting. She pointed out : The field was virgin, at least in Indian context, and will make exacting demands for insight and ingenuity .... studies may be conducted for different age-groups in different disciplines, and rural and urban situation, yet more fundamental research is another necessity, that is, to establish the relationship of environment with learning, achievement, intelligence, creativity and also personality factors.

This study, therefore, intended to provide an overview of one method of measuring school learning climate and its properties. Knowledge of classroom climate can be used to provide feed back to teachers, to evaluate certain affective components of new educational programmes and to make inferences about the effects of class group characteristics on pupil learning within the class and school as a whole. For this purpose, "The Learning Environment Inventory" (LEI) developed by Walberg was used with adaptations. This is a tool for assessing the school climate properties.

The influence of learning environment of the school on student perceptions has been a point of long chase both by the researchers and the teachers. Several recent investigations, whose works have been reviewed earlier, Moos(1979) and Walberg(1982) have emphasized the need to study empirically the learning environment of the school. In the beginning present research was planned to study the perception learning environment of the school by the students, teachers and administrators. But the study had to be delimited to the teachers due to reasons given in the next section.

§ OBJECTIVES OF THE STUDY

1. To explore the various dimensions of learning environment of school;
2. To study and adapt the various dimension of the Learning Environment Inventory (LEI) as developed by Walberg and associates;
3. To study the perceptions of learning environment of the secondary school students;
4. To study the differences in the perceptions of learning environments of students with regard to the types of schools, gender of students and location of schools; and
5. To suggest educational implications of the study so as to make the school learning environment more productive.

§ DELIMITATION OF THE STUDY

Originally, it was planned that perceptions of learning vironments of the three target groups namely, the students, aff and administrators will be studied. Later the study was limited due to the following methodological difficulties :

1. Separate environment scales, with different components, will increase the scope of the study and the comparisons in perceptions will not be meaningful.
2. Rareness in the occurence of identical environments was noticed in the exploratory study through interviews with target population.

3. Variety in the learning environment was the other reason as we have institutions operating under certain constraints and facilities.
4. Implementation of the findings on three types of population - students, staff and administrators - would require different infrastructures.

In view of the above the study was conducted on teachers only.

CHAPTER II

RESEARCH PROBLEMS, QUESTIONS AND TOOLS

2.1 INTRODUCTION

This chapter describes the research problems, questions and the tests used to collect data pertaining to the perception of learning environment. As a project proceeds certain modifications and adaptations become necessary due to various constraints. Some was true of the present project.

2.2 RESEARCH PROBLEMS AND QUESTIONS

This learning environment project aimed at studying the differences in the perceptions of students, teachers and educational administrators on the five components of School Learning Environment Scale (SLES) namely,

A- Locality;
B- Psychosocial;
C- Physical;
D- Activity; and
E- Academic.

The components were studied in terms of five factors of learning environment namely,

1. Location of School (Rural/Urban);
2. Type of School (Boys/Girls/Co-educational)
3. School Management (Govt./Private)
4. Medium of Instruction (Hindi/English/Gujarati/Marathi)
5. State of the Region :(Madhya Pradesh/Maharashtra/Gujarat/Goa)

2.2.1 Research Problems

The project had a focus on the following five problems :

1. Study and analysis of the conceptions of the school administrators on the five components of SLES.

2. Study and analysis of the perceptions of teachers on the five components of SLES.
3. Study and analysis of the perceptions of students on the five components of SLES.

The analyses were to be done for the various dimensions of the SLES, both for the try-out and final collection of data. However, after try-out and final collection of data it was found that items of one common scale (i.e. SLES) did not prove functional for two out of three categories of population (i.e. administrators and students). Therefore, the final analyses were done in respect of teachers only with a view to finding answers to the questions listed in the next section.

2.2.2 Research Questions

1. Do the teachers of rural and urban schools differ in their perceptions of learning environment as measured by SLES ?
2. Do the teachers of boys, girls and co-educational schools differ in their perceptions of learning environment ?
3. How does the management pattern of schools influence the perceptions of its teachers ?
4. How does the medium of instruction of the schools influence the perceptions of its teachers ?
5. How do the teachers working in schools of different states (MP,MS,Gujarat,Goa) of the Western Region differ in their perceptions of learning environment of their schools ?

2.3 DEVELOPMENT OF SCHOOL LEARNING ENVIRONMENT SCALE

The Learning Environment Inventory (LEI) developed by H.J. Walberg and G.J. Anderson was used to collect data after suitable modifications. The LEI was developed into a scale called School Learning Environment Scales (SLES) for use on the target population. The SLES has five main components, which are described in the next section.

2.3.1 Components of SLES :

Development of the tool called School Learning Environment Scale (SLES) was done and used on the target group. Main components, supported by researches, are describ below :-

Component A-School Locality : The School Locality of school surroundings, conditions and influences which directly affect achievement and learning in the classroom in which one, as a student and teacher is working.

Component B-Psycho-Social Environment :

Psycho-social environments scales of classrooms have been devised originally by Moos (1976). He proposed that vastly different social environments can be described by comm or similar sets of dimensions of five broad categories : Relationship, Personal Development, System Maintenance and System Change. Moos suggests that the dimensions are similar across many environments, although vastly different settings may impose unique variations within the general categories. The dimensions have formed the conceptual framework for analysis psycho-social environments in settings like : famili therapeutic groups, work milieus, university student living groups, hospital and community programmes, correctional

institutions and classroom (Moos,1974,1975). In classroom research the dimensions are defined by the following sub-scales : (a) Relationship dimensions by involvement, affiliation and teacher support; (b) Personal dimensions by task orientation and competition; and (c) the system category by order and organization, rule clarity, teacher control, and innovation. The classroom Environment Scale consists of 90 true-false items, 10 for each dimension.

The six sub-components of psycho-social environment are described below :-

B.1-Cohesiveness :- When several individuals interact for a period of time, a feeling of intimacy of cohesiveness may develop. This property separates members of the group from non-members. Small classes are found more cohesive than the large classes particularly when the class-contains lower than 16 pupils (Walberg,1969 a; Walberg and Ahlgren,1970; Anderson and Walberg,1972), and classes of teachers who are inexperienced with a new course are perceived as more cohesive than those taught by teachers familiar with the course (Anderson, Walberg and Welch,1969). Also, classes in history and English were found to be more cohesive than those in other subjects. (Shaw and Mackinnon,1973). Cohesive classes sanction only goal directed behaviour; if the group norm includes learning, cohesiveness contributes to increased learning; for non-learning oriented classes, cohesiveness act against those pupils who want to lear.

B.2-Formality :- The extent to which behaviour within the class is guided by formal rules reveals something about the behavioural norms of the class. Large classes are considered more formal than are small classes and the increase in

formality is most prominent when the size increases above 30 (Walberg,1969). Mathematics classes tend to be the most informal (Anderson,1970 b; Shaw and MacKinnon,1973) when compared to classes in Science, humanities and languages. This scale does not appear to relate significantly to common measures of pupils learning.

B.3-Favouritism :- This scale might be used to indicate whether pupils have a low academic self concept. It is essentially a measure of negative effect. Relationships with course and learning variables have few and inconsistent.

B.4-Apathy :- This scale complements the cohesiveness scale and indicates whether individuals within the class feel affinity with class-activities.

B.5-Democratic :- A large number of studies on the authoritarian-democratic continuum have attempted to support or oppose democratic classroom atmosphere. The scale does not discriminate among courses nor does it relate significantly to pupil learning. Many of these studies lacked a provision for the interaction of democratic procedure with other class room properties and a majority of them employed experimental manipulation of the independent variables and a use of extreme groups only. In terms of this measure, it is felt that the democratic property has been highly over-rated in the past. It was found that democratic scores were higher in senior secondary mathematics classes than at lower grade levels.

B.6-Cliqueness :- Sub-groups or cliques within a class can lead to hostility among members of the class. These cliques offer protection to those who are failures in the group at large and provide alternate norms which predominently lead to less than

optimal group productivity. However, in some instances cliques can be positive in orientation and lead to increased learning for certain pupils (Anderson,1976 C).

B.7-Disorganization :- It includes the extent to which pupils consider the class disorganized in-relation to the subject studied. According to Anderson's study, Disorganization is highest in mathematics classes. It has been consistently demonstrated that high Disorganization leads to a reduction in pupil learning (Anderson, Walber,1968; Walberg,1969 b).

Component C : Physical Environment :

The physical environment determines to a considerable extent the quality of healthful living which is possible in the situation. Too often emphasis has been placed upon the physical aspects of the environment, assuming that adequate space, facilities, appropriate equipment and library assures maximum productivity. There is increased recognition, however that the best physical environment can be wasted unless the teacher is alert in its utilization and opportunities for learning. If the teacher plans no time in out-of-door activities the children cannot experience its value. Play ground equipment that offers opportunities for exercise and muscular growth will be useless if the children are kept inside. Well planned physical facilities are useless unless they contribute to the development of desirable habits and attitudes and also if they are not maintained properly.

C.1-Environment :- In children's group the physical environment, including the amount of space available and the type of recreational equipment, greatly influences the structure of the group (Cartwright and Zander,1968).

Furthermore, studies of seating patterns in school class provide evidence of the importance of the physical environment on learning. Environment is generally positively correlated with measures of pupils learning (Anderson,1970c).

C_2. Difficulty:- The difficulty scale was considered important for the same reasons, as the speed scale and completes the "depth-breadth" paradigm used by some educational theorists. Also, it was incorporated specifically for the course evaluation of which the LCIS formed part. Difficulty scores are highly related to measures of cognitive learning. In Anderson's study (1970 b) it was observed that mathematics classes have been found to be perceived as more difficult than classes in other subjects. In the same way larger classes are perceived less difficult than are small ones.

D. Activity Environment:- Many aspects of classroom work relate to the life of the whole school activities. The increasing emphasis that the school contributes to the development of balanced personality, good citizenship and worth-while recreational interests has resulted in the creation of many curricular provisions in the schools. The widening concern for all aspects of development is shown by increasing use of such term as "co-curricular activities"special activities", "a school activities" and the like.

D_1. Curricular Activity:- This dimentsion encodes the child's activities or experiences in categories relevant to different aspects of intellectual and other development. Ramji(1974) reported that the primary schools which regularly organised school activities such as class teaching, curricular and

co-curricular activities, manual work, creative and artistic work helped in the development of such student characteristics as cleanliness, punctuality, cooperation, leadership, regularity, honesty, helpfulness, curiosity, obedience and self reliance.

D$_2$. Co-curricular Activity:- Co-curricular activities and educational facilities provided by the school form integral part of the total school environment. The reason is obvious that their focal point has been the class-room social climate and its interaction with the learners. Those school sponsored child activities which require administrative provisons and organizational involvements are somewhat different from the more typical classroom instruction.

Effective classroom teaching, based on personal guidance of pupils in academic pusuits and effective provision of co-curricular activities, contribute to the development of desirable characteristics. The students find the learning environment congenial for the development of ~~these types~~ of characteristics if the school ensures effective teaching which is properly matched with opportunities to participate in co-curricular activities.

E$_1$. Diversity:- The extent to which the class provides for the diversity of pupil interests and activities is important to researchers as it constitutes as important variable of learning environment. Anderson reports the diversity scale has not shown strong relationships with learning criteria and is, therefore, considered most relevant for the evaluation curricular areas and their methodological

innovations. Further, the reliability of the scale is extremely low. Therefore the inferences concerning diversity must be made with caution.

E_2. **Speed**:- The rate of progress of the class should ideally be matched to the characteristics of individual pupils. The pupils' need for affiliation can be met with if they feel that they are learning at the same rate as other students. The individual students' perception of how fast the teacher covers the work tells us something about the students. The class rating of speed should tell us something about how well the teacher is able to communicate with and adapt to the needs of the group. The classes in science and mathematics are considered as having faster speed than those of English and humanities. Speed has not been found to relate significantly to pupil learning (Anderson,1970 c.).

E_3. **Goal Direction**:- Nanny and Johnson(1964) considered group goal of initial importance to individual pupil learning. The recognition of goal and their subsequent acceptance by the group serves to sanction goal-oriented behaviours and provides an expected role or norm for the class members. Regarding learning criteria, however, the relationships have been less common than the proponents of well specified behavioural objectives would wish.

E_4. **Satisfaction**:- Whether pupils like or dislike their class, it can be expected to affect their learning. If students dislike the subjects, the teachers or their class-mates their frustrations may result in less than optimal performance. Furthermore, because satisfaction with school in

itself is goal of education, relationships between scores on this scale and the composition of the class may help shed light on the effects on such practices as homogeneous grouping, integration by sex and race and so forth. Satisfaction is negatively related to class-size (Walberg 1969 a). It is reported to be highest in science classes (Anderson, 1968 b).

E_5. Competitiveness:- This scale was added to the 1969 revision of the LEI because competitiveness is considered as a control concept in group dynamics. Shaw and Mc Kinnon (1973) report higher competitiveness in their experimental mathematics classes than is perceived in other subject areas. Walberg, Sorenson and Fischback(1972) attributed the differences in competitiveness to the SES composition of the student body. Randhawa and Michayluk(1973) have reported higher levels of competitiveness in rural class rooms than in urban classrooms of Westeren Kanada.

2.4. Selection of SLES Items.

The Learning Environment Inventory(LEI) developed by Walberg and Anderson (1973), formed the basis of SLES. The LEI scales were designed by Walberg and Anderson to measure the school bearing climate and its structural characterstics and thus the inter-personal relationships among students and teachers. The learning environment of different schools can also be compared by this inventory. The LEI scales are 'high-inference' measures as they require subjective ratings of the perceived behaviour unlike the 'low inference' instruments which are objective counts of the observed behaviour. Inter-school comparisons can also be made by the scales based on the LEI.

2.4.1. Try-out of SLES: 206 items were included in the preliminary form of SLES which was based upon the items of LEI scales. Finally 177 items were included in the try-out form of the SLES alongwith the instructions and practice items. Six higher secondary schools of Bhopal city with 200 students were selected for the try-out purposes. Before try-out, they were categorized into two groups, high criterion group(LCG) for the selection of items for the SLES as given below in Table 4.1

Table 2.1: The number of participating students in the try-out of SLES.

School	Students of HCG	Students of LCG	Total
1	30	-	30
2	38	-	38
3	32	-	32
4	-	28	28
5	-	34	34
6	-	38	38
Total	100	100	200

Thus out of 200 students, 100 were in the HCG and 100 in the the LCG.

2.4.2 Final Form of the SLES : The Data collected on the preliminary form was subjected to item analysis. Chi-square analysis of the items between the HCG and LCG was made. Those items which discriminated between these two groups were retained finally. The final form of SLES (Appendix-A) contained 104 items as per details given in Table 2.2. These items were selected out of 177 items.

Table 2.2 Distribution of items according to factors of the SLES.

Factor/Component	No. of Items
School locality	2
Psycho-social Environment	29
Physical Environment	14
Activity Environment	39
Academic Environment	20
	104

CHAPTER III

METHODOLOGY

3.1 INTRODUCTION

This chapter deals with the sample, brief description of school learning environment scale (SLES), procedure of data collection and statistical techniques used in its analysis.

3.2 SAMPLE

3.2.1 Sample for Tryout : The preliminary form of SLES, containing 177 items, were administered on the entire sample envisaged in the proposal. In included 200 secondary school students, 50 teachers and 6 educational administrators. But many of the teachers were also discharging administrative responsibilities. 104 items were retained finally.

3.2.2 Sample for Final Collection of Data : As the final form of the SLES was administered on teachers only, the other two sub-groups students and administrators - were not included in the final analysis. The data were collected on 117 teachers from the four states of the Western Region - Madhya Pradesh, Maharashtra, Gujarat and Goa. The sample was incidental since all the teachers were under going final year of on the job teacher training course.

3.3 TOOL USED : SLES

3.3.1 Item Pattern : The School Learning Environment Scale (SLES) constructed and used for data collection comprises five components namely A. School locality, B. Psychosocial environment, C. Physical environment, D. Activity environment and E. Academic environment. Sections B and E are adapted versions of the LEI Scales used widely in earlier studies and

contain items in five-choice format, viz. a. Always ( ), b. Mostly ( ), c. Often ( ), d. Sometimes, and e. Never. Items in components A and D are also framed on similar pattern. Items in Component C are yes-no pattern. The overall composition of the SLES items is presented below in Table 3.1.

Table 3.1 Item Composition of SLES

COMPONENT/Factor	No.of Items		Type
	Factor	Comp.	
A. SCHOOL LOCALITY	2	2	5-choice
B. PSYCHO-SOCIAL		29	5-choice
1. Cohesiveness	6		
2. Formality	3		
3. Favouritism	2		
4. Apathy	3		
5. Democratic	4		
6. Cliqueness	6		
7. Disorganisation	5		
C. PHYSICAL		14	Yes-No
1. Environment	5		
2. Difficulty	9		
D. ACTIVITY		39	5-choice
1. Curricular	14		
2. Co-curricular	25		
E. ACADEMIC		20	5-choice
1. Diversity	3		
2. Speed	6		
3. Goal Direction	3		
4. Satisfaction	4		
5. Competetiveness	4		
Total		104	

3.3.2 Scoring of SLES : The scoring weights for the four SLES were 5,4,3,2 and 1 for the responses checked. 'Always' to 'Never' were scored for positive items and 'Never' to 'Always' for the negative items. The scoring for component C (Physical environment) was done on 'yes' (1 score and 'No' (0 score) patter. Maximum possible score for the entire SLES was 464 (90 x 5 = 450; 14 x 1 = 14). Hand scoring was done for the items of SLES.

3.4 STATISTICAL ANALYSES

In addition to the use of the measures of central tendency and variability the two other techniques were used for the analysis of the try-out and final data.

3.4.1 Chi-Square Test : This test was applied for determining the significance of the differences on each item in terms of the scores obtained by the high criterion (HCG) and low criterion (LCG) groups. Those items which discriminated between the respondents of the two groups were retained for the final form. The validation of the SLES was done on the student sub-samples as their marks in school subjects were readily available.

3.42 Analysis of Variance : Analysis of Variance (ANOVA) technique was employed to study the differences among the various sub-samples derived on the following bases :

Area Basis : Rural/Urban Schools
Composition Basis : Boys/Girls/Co-education schools
Management Basis : Govt./Private Schools
Medium Basis : Hindi/English/Marathi/Gujarati Medium Schools
State Basis : Madhya Pradesh/Maharashtra/Gujarat/Goa State Schools

The purpose of using this classifying technique was to ascertain as to which of these variables influence(s) the perception of teachers as far as their learning environment is concerned. In all 25 analysis were done interms of the F-ratios. The findings of the study are presented in the next chapter.

CHAPTER IV

FINDINGS AND INTERPRETATIONS

4.1 INTRODUCTION

This chapter deals with the findings of the project. Statistical analyses of variance on the perception scores of school teachers of about the five components of school learning environment are presented below. The five components of school learning environment are presented below. The five components include (1) School Locality (2) Psychosocial Environment, (3) Physical Environment, (4) Activity Environment and (5) Academic Environment. Teachers' perceptions of each component are analysed further on five bases of sample - classification, namely A. Area Basis (Rural/Urban), B. Composition Basis (Boys/Girls/Coeducational Schools), C. Management Basis (Govt./Private Schools), D. Medium Basis (Hindi/English/Marathi/Gujarati) and E. State Basis (Madhya Pradesh/Maharashtra/Gujarat/Goa schools). The results follow in order.

4.2 SCHOOL LOCALITY

4.2.1 Analysis of Variance: Perception scores on school locality were subjected to analyses of variance. All the five analyses on the bases cited above are presented below in Table 4.1.

Table 4.1. Analyses of variance on school Locality

(N = 117 Teachers/Schools)

Source	df	Sum of Squares	Variance	F.Ratio	p
Total	116	103.92	-	-	
A. AREA-Basis*					
Between	1	0.25	0.25		
Within	115	103.67	0.90	3.60	ns
B. COMPOSITION Basis					
Among	2	2.23	1.115	1.25	ns
Within	114	101.69	.892	-	
C. MANAGEMENT Basis					
Between	1	0.05	0.05	-	
Within	115	103.87	0.90	18.00	ns
D. MEDIUM Basis					
Among	3	4.12	1.37	1.56	ns
Within	113	99.80	0.88	-	
E. STATE Basis					
Among	3	5.54	1.85	2.13	ns
Within	113	98.38	0.87	-	

* F.05 = 3.93 (1/115) ; 3.08 (2/114) ; 2.69(3/113)
** F.01 = 6.87 (1/115) ; 4.80 (2/114) ; 3.97(3/113)
@ F.05 = 253 (115/1) ;19.49 (114/2) ; 8.56(113/3)
@@ F.01 = 6340(115/1) ;99.49 (114/2) ;26.22(113/3)
ns - not significant

A look at the column of variances in the Table clearly indicates that the variance between/among groups is found larger only on three bases(composition, Medium and State) whereas on the other two bases(Area and Management) the variance within groups happens to be larger. Looking at the F-ratios and their probability (p), it is found that none of the five F-ratios is significant. Consequently, the hypothesis of null differences on School Locality is accepted. It implies that the items selected on the basis of high/low criterion (examination results) groups are shared as a common characterised in the schools classified on any basis. That is, whether schools are classified by area or composition or management or medium or state, their categories include all kinds of school locality.

4.2.2 Group Means: Although no differences are found among groups, it would be worth while to have a look at the means of various groups on 'school locality' presented in Table 4.2.2.

Table 4.2. Group Means and Difference on School Locality

Basis	Schools Group	N	Mean	Difference
AREA	Rural	51	6.41	No
	Urban	66	6.32	
COMPOSITION	Boys	29	6.17	No
	Girls	12	6.17	
	Co-educational	76	6.46	
MANAGEMENT	Govt.	41	6.39	No
	Private	76	6.34	
MEDIUM	Hindi	30	6.43	No
	English	51	6.41	
	Marathi	23	6.00	
	Gujarati	13	6.61	
STATE	Madhya Pradesh	33	6.42	No
	Maharashtra	49	6.12	
	Gujarat	19	6.68	
	Goa	16	6.56	

It is evident that the spread of all the means cited above is small ranging from 6.00 to 6.68 only suggesting that the population of schools/teachers is homogenous with regard to locality.

4.3 PSYCHOSOCIAL ENVIRONMENT.

4.3.1 Analyses of Variance: Perception scores on psychosocial environment is schools were analysed to test the hypothesis of null difference among groups. The analyses are presented on all the five bases in Table 4.3.

Table 4.3. Analyses of Variance of Psychosocial Environment

(N = 117 teachers/schools)

Source of Variance	df	Sum of squares	Variance	F.Ratio	p
Total	116	64426.30			
A. AREA Basis					
Between	1	0.60	0.60		
Within	115	64425.70	933.71		@
B. COMPOSITION Basis					
Among	2	30.40	15.20		
Within	114	64395.90	564.88	37.167	@
C. MANAGEMENT Basis					
Between	1	1.40	1.40		
Within	115	64424.90	560.22	400.15	@
D. MEDIUM Basis					
Among	3	1852.46	617.49	1.12	ns
Within	113	62573.84	553.75		
E. STATE Basis					
Among	3	1216.50	405.50		
Within	113	63209.80	559.38	1.37	ns

@ F.05 = 253, df = 115/1
@ F.05 = 19.49, df = 114/2
ns not significant.

A look at the column of variance indicates that the variance between/among groups was found larger only on two bases (Medium and State), the F-ratios being 1.12 for Medium classification and 1.37 for state classification. Both the ratios(F) are insignificant. Henceforth, the hypothesis of null difference between/ among groups on psychosocial environment is accepted.

An interesting situation emerges however with the fact that the variance within groups happens to be very large on three bases, namely Area, Composition and Management. And in all the three cases, the F-ratios are significant with .05 level of alpha-error, being 933.71 (with 1/115 degrees of freedom) on Area-basis, 37.16(with 2/114 df) on composition basis and 400.15 (with 1/115 df) on Management basis. It implies that if the schools are classified into urban/rural settings, or boys/girls/coeducational composition or govt./private managed, their group differences are minimal, but within each group,psychosocial environment is widely varying in the schools.

4.3.2 Group Means: Although no significant differences are located among the groups on psychosocial environment, a record of group-means would be desirable. The means presented in Table 4.4 below indicate that they ranged between 95.91 and 107.23, half of them being around 100.101.

Table 4.4 Group Means and Differences on Psychosocial Environment

Basis	School/Teachers Groups	N	Mean	Differences
AREA	Rural	51	101.16	No
	Urban	66	101.30	
COMPOSITION	Boys	29	101.93	
	Girls	12	100.09	No
	Coeducational	76	101.16	
MANAGEMENT	Govt.	41	101.39	
	Private	76	101.16	No
MEDIUM	Hindi	30	100.31	
	English	51	104.06	
	Marathi	23	95.91	No
	Gujarati	13	107.23	
STATE	Madhya Pradesh	33	96.76	
	Maharashtra	49	103.22	No
	Gujarat	19	105.32	
	Goa	16	99.56	

4.4 PHYSICAL ENVIRONMENT

4.4.1 Analyses of Variance: Perception scores on the physical environment prevailing in schools were analysed for variance-ratios on the five bases. The results follow in Table 4.5.

Table 4.5 Analyses of Variance on Physical Environment

(N = 117 Teachers/schools)

	Source of Variance	df	Sum of squares	Variance	F.Ratio	p
	Total	116	551.30	-	-	-
A.	AREA BASIS					
	Between	1	8.05	8.05	1.71	ns
	Within	115	543.25	4.72	-	
B.	COMPOSITION BASIS					
	Among	2	0.33	0.165	-	
	Within	114	550.97	4.83	29.29	ns
C.	MANAGEMENT BASIS					
	Between	1	3.90	3.90	-	
	Within	115	547.40	4.76	1.22	ns
D.	MEDIUM BASIS					
	Among	3	20.10	6.70	1.43	ns
	Within	113	531.20	4.70	-	
E.	STATE BASIS					
	Among	3	16.65	5.55	1.17	ns
	Within	113	534.65	4.73	-	

ns = not significant

A look at the column of variance clearly indicates that variance between/among goups was found larger on Area basis, Medium basis and State-basis. Variance in case of composition and Management bases happened to be larger within groups. In any case, F-ratio was not found significant. Hence, the hypothesis of null difference among groups on perceptions of physical environment stands accepted. It implies that the physcia l environment of schools is perceived alike by the teachers whether they refer to any of the five criteria.

4.4.2 The differences among groups not significant, yet it may be desirable to have a look at the group-means presented in Table 4.6. It is evident that the spread of the means is very small - ranging from 8.74 to 10.06 only.

Table 4.6: Group Means and Differences on Physical Environment

Basis	Schools/Teachers Groups	N	Mean	Difference
AREA	Rural	51	8.94	No
	Urban	66	9.47	
COMPOSITION	Boys	29	9.24	No
	Girls	12	9.08	
	Coeducational	76	9.26	
MANAGEMENT	Govt.	41	9.49	No
	Private	76	9.11	
MEDIUM	Hindi	30	8.87	No
	English	51	9.67	
	Marathi	23	8.74	
	Gujarati	13	9.23	
STATE	Madhya Pradesh	33	9.03	No
	Maharashtra	49	9.00	
	Gujarat	19	9.53	
	Goa	16	10.06	

45 ACTIVITY ENVIRONMENT

4.5.1 Analyses of Variance: Preception scores on activity environment of the schools by teachers were analysed for F-ratios to test the differences among groups. The results on five bases of classification are presented in Table 4.7.

4.5 ACTIVITY ENVIRONMENT

4.5.1 Analyses of Variance: Perception scores on activity environment of the schools by teachers were analysed for F.ratios to test the differences among groups. The results on five bases of classification are presented in Table 4.7.

Table 4.7. Analyses of Variance on Activity Environment

(N = 117 Teachers/schools)

Source of variance	df	Sum of squares	variance	F.Ratio	p
Total	116	109203.08	-	-	
A. AREA BASIS					
Between	1	3760.08	3760.08	4.10	*
Within	115	105443.00	916.89	-	
B. COMPOSITION BASIS					
Among	2	618.18	309.09	-	
Within	114	108584.90	952.5	3.08	ns
C. MANAGEMENT BASIS Between	1	14.90	14.90	-	
within	115	109188.18	949.46	63.72	ns
D. MEDIUM BASIS					
Among	3	16105.08	5368.37	6.52	**
Within	113	93098.00	823.88	-	
E. STATE BASIS					
Among	3	6858.28	2286.09	2.52	ns
Within	113	102344.80	905.71		

* F.05 = 3.93, df = 1/115
** F.01 = 3.97, df = 3/113
ns not significant

A look at the column of variance in the Table indicates that variance among groups is larger on the bases of Area, Medium and State. Of these, the F.ratio on Area-basis is 4.10 significant at .05 level of alpha-erro, on Medium basis is 6.52 significant at .01 level; and on State-basis is 2.52 not significant. As such, two F.ratios

were found significant, implying that the hypothesis of null difference among groups on activity environment is REJECTED. Specially, the activity environment differs in schools classfied on Area (Urban/Rural Schools) and on Medium (English/Hindi/Marathi/Gujarati medium Schools).

Desided, the three variances referred above, two other variances on composition-basis and Management-basis were found to be larger within groups. However, F.ratios for both of them (3.08 and 63.72) were insignificant.

4.5.2. Group Means and Contrasts. Since the groups were found to differ on Area-basis and Medium-basis, it becomes a requirement to locate the contrasts of significant differences. The means of various groups and the + contrasts among groups on medium-basis are reported in Table 4.8 below.

Table 4.8. Group Means and Differences on Activity Environment

Basis	Schools/Teachers Groups	N	Mean	Difference
AREA	Rural	51	95.86	
	Urban	66	105.98	U R
COMPOSITION	Boys	29	105.40	
	Girls	12	98.58	No
	Coeducational	76	100.53	
MANAGEMENT	Govt.	41	102.02	No
	Private	76	101.28	
MEDIUM	Hindi	30	92.07	(G=E)
	English	51	110.98	
	Marathi	23	85.00	(H=M)*
	Gujarati	13	115.61	
STATE	Madhya Pradesh	33	101.36	
	Maharashtra	49	94.02	No
	Gujarat	19	113.68	
	Goa	16	110.50	

* t (G-E) = 0.52 ; t (H-M) = 0.89
t (G-H) = 2.47 ; t (G-M) = 3.07
t (E-H) = 2.87 ; t (E-M) = 3.60

A look at the means shows them to range from 85.00 to 115.61 on activity environment.

For comparison on Area-basis, the sample divided into two groups only, viz. Urban and Rural. Their means on activity environment are 105.98 (Urban) and 95.86 (Rural). Evidently, the hypothesis of null difference is rejected in favour of urban schools, i.e. the teachers from urban area schools perceive the activity environment of their schools significantly better than their counterparts in rural schools.

On the basis of Medium, the means of activity environment is descending order were found to be 115.61 for Gujarati medium, 110.98 for English medium, 92.07 for Hindi medium and 85.00 for Marathi medium. Group-contrasts (t-tests) reported at the end of the Table 4.8 indicate that there are no significant differences between the pairs of Gujarati and English medium schools (t = 0.52) of Hindi and Marathi medium schools (t = 0.89). Gujarati-medium and English medium schools were found to be significanly better than Hindi medium and Marathi medium schools. That is, the teachers from English medium and Gujarati medium schools perceive the curricular and cocurricular activity environment prevailing in their schools better than the teachers from Hindi or Marathi medium schools.

4.6 ACADEMIC ENVIRONMENT

4.6.1 Analyses of Variance. Perception-scores on academic environment were subjected to analysis of variance on the five bases of group-classification. Summary of the analyses of variance is presented in Table 4.9.

Table:4.9 Analyses of Variance on Academic Environment
(N = 117 Teachers/schools)

	Source of variance	df	sum of squares	Variance	F.Ratio	p
	Total	116	6045.20	-	-	
A.	AREA BASIS					
	Between	1	54.45	54.45	1.05	ns
	Within	115	5990.75	52.09	-	
B.	COMPOSITION BASIS					
	Among	2	85.65	42.82	-	
	Within	114	5959.55	52.28	1.22	ns
C.	MANAGEMENT BASIS					
	Between	1	6.96	6.96	-	
	Within	115	6038.24	52.51	7.54	ns
D.	MEDIUM BASIS					
	Among	3	792.93	264.31	5.69	**
	Within	113	5252.27	46.48	-	
E.	STATE BASIS					
	Among	3	216.61	72.20	1.40	ns
	Within	113	5828.59	51.58	-	

** F.01 = 3.97 ; df = 3/113
ns not significant

A look at the variance-column in the Table shows that the variance among/between groups in larger on the bases of Area, Medium and State, whereas the variance within groups in larger on the bases of composition and Management. Of all the five F.ratios, only one is found the significant. On the basis of Medium, the variance among the groups is larger with F.ratio 5.69 significant at .01 level. Hence, the hypotheses of null difference among groups on academic environmnt is repeted on the basis of medium. It implies that academic environment in schools of varying mediums of instruction is seen as differential.

4.6.2 Group Means and Contrasts. Since the groups of on medium-basis are found to differ significantly, it is essential to locate the pairs with actual differences. The means of various groups and the relevant group contrasts (t -tests) are presented in Table 4.10.

Table 4.10 Group Means and Differences on Academic Environment

Basis	School/Teacher Groups	N	Mean	Difference
AREA	Rural	51	62.75	No
	Urban	66	64.12	
COMPOSITION	Boys	29	64.21	
	Girls	12	65.50	No
	Coeducational	76	62.95	
MANAGEMENT	Govt.	41	63.85	
	Private	76	63.34	No
MEDIUM	Hindi	30	61.60	(E=G)
	English	51	65.72	*
	Marathi	23	59.65	(H=M)
	Gujarati	13	66.15	
STATE	Madhya Pradesh	33	62.82	
	Maharashtra	49	62.71	No
	Gujarat	19	66.47	
	Goa	16	63.94	

* t(G-E) = 0.20 ; t(H-M) = 1.03
t(G-H) = 2.01 ; t(G-M) = 2.74
t(E-H) = 2.62 ; t(E-M) = 3.55

It is evident from the preceding Table that the means on academic environment vary from 59.65 to 66.15. The means for four medium groups in descending order are 66.15 (Gujarati Medium), 65.72 (English medium), 61.60 (Hindi medium) and 59.65 (Marathi medium). A closer look at the group-contrasts at the end of the Table yields a finding similar to that regarding the activity environment. Once again,

academic environment of Gujarati medium and English medium schools is found to be at par, but better than that in Hindi medium and Marathi medium schools, the latter pair also being similar.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

5.1 INTRODUCTION

This chapter presents a summary of the conclusions of the study alongwith their implications for educational institutions.

5.2 CONCLUSIONS

It was hypothesised in this study that the teachers' perceptions about the learning environments in their schools donot differ on the basis of area (urban/rural), compositions (boys/girls/coeducational schools), management (Govt./private schools), medium (Hindi/English/Gujarati/Marathi) or State (Madhya Pradesh/Maharashtra/Gujarat/Goa). The learning environment was studied as to comprise five components, namely, school locality, psychosocial, physical, activity and academic. The hypotheses of null differences among groups were tested for each component of environment on each of the five bases separately. The findings regarding group differences are recapitulated in Table 5.1 below.

Table 5.1: Findings regarding Group Differences

	ENVIRONMENT				
Basis	School Locality	Psycho-social	Physical	Activity	Academic
Area	Null	Null*	Null	U R	Null
Composition	Null	Null*	Null	Null	Null
Management	Null	Null*	Null	Null	Null
Medium	Null	Null	Null	(E=G) (H=M)	(E=G) (H=M)
State	Null	Null	Null	Null	Null

U = Urban
R = Rural
E = English Medium
G = Gujarati Medium
H = Hindi Medium
M = Marathi Medium

* Within group variance significantly large in comparison to among/within group variance

It is evident from the entries in columns, that of the five components of school learning environment, only two are found to be differential for groups. On Activity environment the schools are differentiated by area and medium; whereas in terms of academic environment the schools differ by medium alone.

Psycho-social dimension of school environment demonstrates another characteristic that along this dimension group-differences donot exist, but the schools in all groups are perceived as highly heterogenous in psychosocial environment.

The following conclusions can therefore be drawn regarding the components of environment:

1. School locality and ph-ysical environment of schools donot differ as perceived by teachers on any classification.

2. Activity and academic environments of the school are perceived differentially by teachers in schools of different medium. Activity (curricular and co-curricular)environment is perceived higher in urban schools also in contrast to rural schools. That is, schools do differ on curricular and cocurricular activity and their academic flavour.

3. Psycho-social environment in the schools doesnot vary with groups, but within groups it does vary widely.

Conclusions are derivable the other way also, regarding the bases of classification. Another look at the rows in the Table 5.1 clearly shows that the differentiating bases are only two: Area and Medium. Two conclusions can be drawn accordingly as below:

Documentation
Acc. No. E-7122
Date 23.12.88

4. Activity, curricular and cocurricular, in urban schools is gound to be perceived better than in rural schools.

5. Academic environment is differentially perceived in schools of different medium; English and Gujarati medium schools being better perceived toat Hindi and Marathi medium schools.

5.3 IMPLICATIONS

From the conclusions cited above, some implications can be drawn further toward research and development as below:

(a) Activity dimension of learning environment is a differentiating factor; studies of curricular and co-curricular dimensions may be studied separately.

(b) indepth study of activity and academic components of school environment may yield better insights for institutional planning.

(c) Psychosocial component is a dimension of intra-class differences. Schools high and low on this component may be studied for contrast profiles on other variables. Studies in this regard may help develop the 'hidden curriculam' of school.

(d) Studies of school learning environment from the viewpoint of educational administratos and the community may further insighs into the research on learning environment.

(e) Weak spots in the activity environment in rural schools may be identified and gaps may be lessened with improvements in school programme.

(f) Indepth study of activity and academic environment in English medium and Gujarati medium schools may be done to identify their strengths, so that appropriate feed-back mechanism may be evolved to improve other school-systems.

BIBLIOGRAPHY

1. Alexander,M. Relation of Environment to Intelligence and Achievement. A Longitudinal Study. University of Chicago,1931.

2. Anderson,G,J,Walberg,H.J. Classroom climate and group learning, International Journal of Educational Science,1968, 2, pp.175-180.

3. Anderson,G.J.,Walberg,H.J., Welch,W.W. Curriculum Effects on the Social Climate of Learning,American Educational Research Journal,1969, 6, 3, pp.315-329.

4. Anderson,G.J.Effects of classroom Social Climate,American Educational Research Journal 1970c, 7, 2, pp.135-152.

5. Anderson,G,J,Effects of Course Content and Teacher Sex on Social Climate of Learning American Educational Research Journal,1971, 8, 4, pp.649-663.

6. Anderson,G.J,The Assesament of Learning Environments: A Manual for the Learning Environment Inventory and My Class Inventory. Halifax,N.S. Atlantic Institute of Education,1973.

7. Anderson,G.J, Walberg,H.J. Assessing Classroom Learning Environments. In K.Marjoribanks(Ed.) Environments for Learning. Slough: NFER,1974.

8. Anderson,G.J.Walberg,H.J. Learning Environment. In H.J. Walberg(Ed.),Evaluation of Educational Performance, Berkeley,CA: Mc Cutchan, 1974.

9. Anderson,C.L.A Search for School Climate: A Review of the Research. Review of the Research. Review of Educational Resuarch, 1982, 52,pp.368-420.

10. Barton,A.H. Organizational Measurement and Its Bearing on the study of College Environments, New York: College Entrance Examination Board,1961.

11. Bayti,J.L. A Comparative Study of the Organisational Climate in Rajasthan Schools. Indian Educational Review, 1970, 5(2),pp.107-117.

12. Berliner,C.D.Developing Conception Classroom Environments, Educational Psychologist,1983, 181(1),pp.1-13.

13. Bloom,B.S. Stability and Change in Human Characteristics. New York: Wuley,1964.

14. Boyer,E.L., Michael,W.B. Out comes of College. *Review of Educational Research* 1965,35, pp.277-291.

15. Borg,W.R. Time and School Learning. In C.Denlain and A.Lieberman(Eds.), *Time to Learn*, Washington,D.C.: National Institute of Education,1980.

16. Canter,D., Stringer,P. Environmental Interaction: *Psychological Approach to Our Surroundings.* London: Surrey University Press, 1975.

17. Dave,R.H. The Identification and Measurement of Environmental Process Variables That are Related to Educational Achievement, Ph.D Dissertation, University of Chicago, 1963.

18. DOwning,C.J. Adult and Child: Improving Learning Environments Through Better Communications. In D.J.Karplus(Ed.) Learning: Making Learning,1978.

19. Eubank,J.Y. The Relationship Between Perception and Conception of Environment and Academic Achievement of High Ability Male Students. *Dissertation Abstracts*, 1969.

20. Evans,N.G. Environmental Assessment Practices and Future Directions,: *Journal of College Student Personnel*, 1983, 24, pp.293-299.

21. Fisher,D.L., Fraser,B.J. Validity and Use of MCI, *Science Education*, 1981, 65, pp. 145-156.

22. Fisher,D.L., Fraser,B.J. Validity and Use of the Classroom Environment Scale. *Educational Evaluation and Policy Analysis*, 1983, 5,pp. 261-271.

23. Fraser,B.J.et-al. *Assessment of Learning Environments:* A Manual for Learning Environment Inventory(LEI) and My Class Inventory(MCI). Bentley, Australia: Western Australian Institute of Technology,1982.

24. Forchand,G.A. et-al. Environmental Variations in Studies of Organizational Behaviour Psychological Bulletin, 1964, 62, pp.361-82.

25. Fraser,B.J. *Learning Environment in Curriculum Evaluation:* A Review, Evaluation in Education Series, Oxford: Peramon, 1981.

26. Fraser,B.J.,Walberg,H.J. Psychological Learning Environment in Science Classrooms. A Review of Research Studies. *Science Education*, 1981,pp 867-892.

27. Fraser,B.J., Fisher,D.L. Effects of Classroom Psycho-Social Environment on Student Learning. *British Journal of Educational Psychology*, 52,pp.374-377.

28. Grewal,J.S. *Vocational Environment and Educational and Occupational Choices*, Agra: National Psychological Corporation,1980.

29. Hansard. 'House of Commons Rebuildings',*Parliament* Debates-House of Commons, 393,No.114,pp.403-474.

30. Herr,E.L. Differential Perceptions of Environmental Press by High School Students. *Personnel and Guidance Journal*, 1965, 7, pp. 678-86.

31. Herr,E.L. An Examination of Student Achievement Activities as Related to Perceptions of Environmental Press: Implications. Saddle Brook, N.J.,1962.

32. Herr,E.L. An Examination of Differential Perception of Environmental Press by High School Students as Related to their Achievement and Participation in Activities Columbia,1963 Ph.D.Dissertation, Teachers College.

33. Indiresan,J. Organisational Atmosphere Questionnaire Ph.D. Thesis in Psychology, Delhi: IIT,1973.

34. Joshi,J.N.,Chauhan,S.B. Activities Index. *New Trends in Education*, 1971,11(2), pp. 16-21.

35. Kasper,E.C.et-al. Student Perception of the Environment in Guidance and Non-guidance Schools *Personnel and Guidance*,1965, 7,pp.674-77.

36. Koile,E.A. et-al. Higher Education Programmes. *Review of Educational Research*, 1966, 36,pp.233-255.

37. Kumar K. *Social Climate in School and Characteristics of Pupils.* Ph.D. Psychology, M.S.University, Baroda, 1972.

38. Longhlin,C.E.et-al. *The Learning Environment: An Instructional Startegy*. New York. Teachers College Columbia Univ.,1982.

39. Michael,W.B.et-al. Campus Environment. *Review of Educational Research*, 1966,36, pp.233-235.

40. Mitchel,J.V. Dimensionality and Differences in the Environmental Press of High School Students. *Amer* Edu.Res.J.,1968a,5,pp.513-530.

41. Moos, R.H. *The Human Context: Environmental Determinents of Behaviour* New York: Wiley, 1976.

42. Pace, C.R. *College and University Environment Scales* (CUES), Princeton, N.J.: Educational Testing Service, 1963.

43. Nash, C. *The Learning Environment.* A practical Approach to the Education of 3,4 and 5 Year Olds. Toronto: Collier MacMillan, 1979.

44. Nelsen, H.D., Moos, R.H. *Explorations and Adjustment in High School Classrooms,* Stanford University, 1978.

45. Phi Dettakappa. "Why do Some Urban Schools Succeed"? -A Study of Exceptional Urban Elementary Schools, Bloomington, Indiana, 1980.

46. Rao, T.V. *A Study of the Perceptions of Medical College* [illegible]

47. Ross, H. *Behaviour and Perception in Strange Environments* London, George Allen and Unwin, 1974.

48. Rutter, M et-al. *A 1500 Hours: Secondary School and Their Effects on Children.* Cambridge, Mass.: Harvard University Press, 1976.

49. Shaw, A.K., Mac Kinnon, J. *Evaluation of Learning Environment,* Burlington, Ontario: Lord Elgin High School, 1973.

50. Singh, R.P. Achievement as a Function of Pupil Perceived Learning Environment of the Class; *Journal of* Education and Psychology, Vol.38, No.4, 1976.

51. Stern, G.G. *The High School Characteristic Index (HSCI).* Syracuse, N.Y.: Syracuse University Psychological Research Centre, 1963.

52. Stern, G.G. et-al. *Organizational Climate Index (OCI) 1163.* Syracuse, N.Y.: Syracuse University Psychological Research Centre, 1963.

53. Taylor, A.P. et-al. *School Zone: Learning Environments for Children.* New York: Van Nostrand, 1975.

54. Trickett, E.J. et-al *Three Domains of Classroom Environment:* An Alternative Analysis of the Classroom Environment Scale. Yale Univ., 1977.

55. Walberg,H.J. The Social Environment as a Mediator of Classroom Learning. J.Edl. Psy. 1969(6), 60, pp. 443-448.

56. Walberg,H.J.et-al. Ecological Correlates of Ambience in the Learning Environment , Amer, Edl, Res, Jl: 1972, pp. 139-148.

57. Weinstein,C.S. The Physical Environment of the School: A Review of the Research. Review of Edl. Research, 1979,49,pp.577-610.

58. Weinstein,C.S. Classroom Design as an External Condition for Learning Educational Techology, 1981,21(8) pp. 12-19.

59. Wynne,F.A. ~~xxxxxxxx~~ Looking at Schools: Good, Bad and Indifferent. Lexington, Mas. D.C.Heath,1980.

* o * o * o

विद्यालय में अधिगम पर्यावरण मापनी

विद्यालय :-

नाम :-

आयु :- लिंग

विद्यालय में पढ़ाने का अनुभव :-

शैक्षणिक योग्यता :-

(1) बी0ए0 / बी0एस-सी0

(2) एम0ए0 / एम0एस-सी0

(3) प्रशिक्षित अप्रशिक्षित

(4) अन्य कोई ट्रेनिंग व डिग्री जो आपने लिया हो उसका नाम लिखिये

(5) अध्यापक / प्रधानाध्यापक

(6) अन्य :-

प्रस्तुत पुस्तिका में कुछ ऐसे प्रश्न है जिसके द्वारा विद्यालय में सीखने से सम्बन्धित वातावरण का पता लगाना है । कृपया प्रत्येक प्रश्न का सीमांकन निष्पक्षता के साथ कीजिये । आपके उत्तर पूर्ण रूप से गुप्त रखें जायेंगे । प्रत्येक भाग के निर्देश साथ में दिये गये हैं । जिन प्रश्नों पर ( ) बने हैं उन प्रश्नों को प्रधानाध्यापक ही करें ।

निर्देश (अ)

नीचे लिखे प्रश्न में पाँच सम्भावित उत्तर दिये गये हैं आप जिस उत्तर से सहमत हैं, उनके सामने ( ) का निशान लगाइये ।

(1) विद्यालय में किस वर्ग के बच्चे आते हैं ?

(अ) उच्च श्रेणी के सरकारी कर्मचारी के बच्चे ( )

(ब) व्यापारी वर्ग के बच्चे ( )

(स) मध्यम श्रेणी के बच्चे ( )

(द) निम्न श्रेणी के बच्चे ( )

(इ) अत्यन्त निम्न श्रेणी के बच्चे ( )

(2) विद्यालय में अध्यापक प्रतिदिन नियमित रूप से समय पर आते हैं ?

(अ) अत्यन्त नियमित ( )

(ब) सामान्य ( )

(स) कभी कभी ( )

निर्देश (ब)

प्रस्तुत भाग में कुछ कथन दिये गये हैं । प्रत्येक के लिये पांच संभावनाएं दी हुई है । जिस संभावना से आपकी राय मिलती हो उसके सामने ( ) का निशान लगाइये ।

क्रम	(कथन)	सदैव	अधिकतर	अक्सर	कभी कभी	कभी नहीं
1-	कक्षा में अधिकांश विद्यार्थी मिलकर काम करते हैं ?					
2-	कक्षा में विद्यार्थी आधी छुट्टी में साथ बैठकर खाना खाते हैं ?					
3-	विद्यार्थी शिक्षा संबंधी कार्यों में रुचि व्यक्त करते हैं ?					
4-	कक्षा में विद्यार्थी एक दूसरे की मदद करते हैं ?					
5-	कुछ विद्यार्थी कक्षा में अलग अलग रहते हैं ?					
6-	विद्यालय में प्रोजेक्ट के लिये सब विद्यार्थी मिलकर काम करते हैं ?					
7-	विद्यार्थी शोर मचाते हैं ?					
8-	विद्यार्थी कक्षा में अध्यापक के निर्देशानुसार काम करते हैं ?					
9-	जो विद्यालय के नियमों को तोड़ते हैं, उन्हें कठोर दण्ड मिलता है ?					
10-	पढ़ाई में होशियार विद्यार्थियों पर विद्यालय अधिक ध्यान देते हैं ?					
11-	अध्यापक कमजोर विद्यार्थियों को कक्षा के अन्य साथियों के बराबरी में लाने का प्रयत्न करते हैं ?					
12-	सभी विद्यार्थी कक्षा के भविष्य के बारे में सोचते हैं ?					
13-	कमजोर विद्यार्थियों की रुचियों को प्रोत्साहित किया जाता है ?					
14-	कमजोर विद्यार्थी अधिक परिश्रम करने में असमर्थ होते हैं और इससे अपने को हीन समझते हैं ?					
15-	कक्षा में कुछ विद्यार्थियों का प्रभाव दूसरे विद्यार्थियों के प्रभाव की अपेक्षा अधिक रहता है ?					
16-	कुछ विद्यार्थी अपनी इच्छा सभी विद्यार्थियों पर लादते हैं ?					
17-	अध्यापक कक्षा के प्रत्येक विद्यार्थी का विशेष महत्व जानते हैं ?					
18-	सभी विद्यार्थी श्रमदान में भाग लेते हैं ?					
19-	कक्षा में कुछ विद्यार्थी केवल अपने घनिष्ट मित्रों के साथ कार्य करते हैं ?					
20-	कुछ विद्यार्थी कक्षा में दूसरे गुट में मिलने से इंकार करते हैं ?					
21-	कक्षा में विद्यार्थी गुट में मिलकर कार्य करते हैं तो अधिक कार्य कर लेते हैं ?					

क्रम	विषय	सदैव	अधिकतर	अक्सर	कभी कभी	कभी नहीं
22-	कक्षा में दोस्तों के कुछ गुट साथ साथ बैठते हैं ?					
23-	कक्षा के होशियार विधार्थी किसी भी गुट में मिलना पसंद नहीं करते ?					
24-	कुछ विधार्थी कक्षा में अपनी इच्छा से ही कार्य करते हैं ?					
25-	विधालय में सत्र के प्रारम्भ में ही कार्यक्रमों की रूपरेखा तैयार की जाती है ।					
26-	कक्षा की मीटिंग में विधार्थियों की समस्याओं का समाधान भी होता है ?					
27-	कक्षा में काफी देर तक कुछ भी काम नहीं होता ?					
28-	कक्षा के अनुशासन को शैतान विद्यार्थी अव्यवस्थित कर देते हैं ?					
29-	कक्षा की मीटिंग में विधार्थियों की अस्पष्टता बनी रहती है ?					

निर्देश (स)

नीचे कुछ प्रश्न दिये गये हैं, जिसके सम्भावित उत्तर साथ में दिये गये हैं । आप जिससे सहमत हैं, उसे (✓) कोष्टक में लिखिये । इसमें कुछ प्रश्न (हाँ/नहीं) भी हैं : जिसमें आपको (✓) का निशान लगाना है ।

1- विधालय कक्ष में सफाई की अच्छी व्यवस्था है । (हाँ/नहीं)

2- विधालय में पुस्तकालय की व्यवस्था है । (हाँ/नहीं)

3- पुस्तकालय की सुविधायें (शिक्षक / सभी) के लिये है (हाँ/नहीं)

4- प्रयोगशाला की अच्छी व्यवस्था है । (हाँ/नहीं)

5- प्रयोगशाला में कार्य करने के लिये अच्छी जगह है । (हाँ/नहीं)

6- विधार्थी अपनी समस्यायें का स्वयं समाधान करते हैं । (हाँ/नहीं)

7- कक्षाओं में प्रतिभाशाली विधार्थियों को ही सीखने के अधिक अच्छे अवसर दिये जाते हैं । (हाँ/नहीं)

8- अध्यापक के लिये कक्षाओं में अधिक विधार्थियों पर नियंत्रण करना कठिन है । (हाँ/नहीं)

9- कक्षा में विधार्थियों को गृहकार्य करके लाना कठिन है । (हाँ/नहीं)

10- कक्षा में विधार्थी अतिरिक्त कार्य करने के लिये कठिनाई का अनुभव करते हैं । (हाँ/नहीं)

11- कक्षा में विधार्थियों की उन्नति करने के लिये अनेक कठिनाईयों का सामना करना पड़ता है । (हाँ/नहीं)

12- विद्यार्थियों को विज्ञान और अंग्रेजी विषय कठिन लगता है । ।हाँ/नहीं।
13- कुछ विद्यार्थियों को संस्कृत पढ़ने में कठिनाई होती है । ।हाँ/नहीं।
14- पढ़ाये जा रहे विषय पर विद्यार्थियों का ध्यान आकर्षित नहीं रहता । ।हाँ/नहीं।
15-

। निर्देश -द ।

प्रस्तुत भाग में प्रश्नों के ऊपर दाहिनी ओर पांच संभावनाएं दी गई है, जिस संभावना में आपकी राय हो, उसमें । ✓ । का निशान लगाइये ।

क्रम संख्या	कथन	सदैव	अधिकतर	अक्सर	कभी कभी	कभी नहीं
।।।	विद्यालय में पढ़ाते समय शिक्षक निम्न सामग्री का उपयोग किस हद तक करते हैं ।					
।अ।	माडल					
।ब।	नक्शा					
।स।	स्केच					
।।।।	विद्यालय में निम्नलिखित गतिविधियाँ किस हद तक होती हैं ।					
।अ।	पुरस्कार वितरण					
।ब।	कक्षा में वा-विवाद					
।स।	मासिक परीक्षा					
।द।	कक्षा कार्य					
।।।।।	आपके विद्यालय में निम्नलिखित गतिविधियाँ किस हद तक होती है ।					
।1 से 3।	साहित्यक					
।1।	शुद्ध व सुलेख					
।2।	वाद-विवाद प्रतियोगिता					
।3।	अन्ताक्षरी					
।4।	भाषण					
।ख। 5 से 7 ।	सांस्कृतिक ।					
।5।	महापुरुषों की जयन्तियां					
।6।	बाल सभा					
।7।	मेला । मीना बाजार ।					
।ग। 8 से 9	सहगामी क्रियायें					
।8।	सामाजिक कार्य					
।9।	बागवानी					
।घ। 10 से 11	कार्यशाला					
।10।	ट टायपिंग					

क्रम संख्या	कथन	सदैव	अधिकतर	अक्सर	कभी कभी	कभी नहीं

(ङ)

(8) (12 से 17) शारीरिक शिक्षा)

(11) शारीरिक शिक्षा

(12) व्यायाम

(13) स्थलिक

(14) कबड्डी, खो-खो, टेबिल टेनिस

(15) बेडमिंटन, बास्केट बाल, फुटबाल, हाकी, क्रिकेट

(16) टुनामिंट

(च) 18- 20 प्रदर्शनी आयोजन

(18) विज्ञान प्रदर्शनी

(19) गृह विज्ञान प्रदर्शनी

(20) कृषि प्रदर्शनी

(छ) (21 से 22) शिक्षा से सम्बन्धित

(21) शिक्षा से सम्बन्धित पर्यटन

(22) महान लोगों का जीवन वृतान्त

(ज) (23 से 27) स्वरूविधा

(23) ड्राईंग

(24) पेंटिंग

(25) स्केच

(26) संगीत

(27) नृत्य

(झ) (28 से 32) अन्तः शालेय स्तर

(28) अन्तः शालेय स्तर

(29) प्रान्तीय स्तर

(30) राष्ट्रीय स्तर

(31) अन्तः राज्य स्तर

(32) अन्तर्राष्ट्रीय स्तर

निर्देश (द)

प्रस्तुत प्रश्नों में ऊपर पाँच सम्भावित उत्तर दिये गये हैं। अपनी राय के अनुसार प्रत्येक प्रश्न पर (✓) का निशान लगाईये।

क्रम संख्या	कथन	सदैव	अधिकतर	अक्सर	कभी कभी	कभी नहीं

1- विद्यार्थी विभिन्न प्रकार की समस्याओं को पेश करते हैं

2- विद्यार्थी एक दूसरे से भिन्न अनुभप सुनते हैं ।

3- विद्यार्थी विभिन्न विषयों में अपनी रूचियों के आधार पर अलग अलग समझ से कार्य करते हैं ।

4- विद्यार्थियों को गृह कार्य करने के लिये कक्षा में ही समय मिल जाता है ।

5- विद्यार्थियों को कार्य करने की जल्दी नहीं रहती ।

6- अध्यापक सिलेबस जल्दी जल्दी समाप्त कर देते हैं ।

7- कक्षा में थोडे से विद्यार्थी ही काम पूरा कर पाते हैं ।

8- प्रतिभाशाली विद्यार्थियों को अतिरिक्त गृहकार्य दिया जाता है ।

9- सिलेबस पूरा करने के लिये कक्षा में काफी समय होता है ।

10- विद्यार्थी जानते हैं कि आज कक्षा में वे कौन कौन से विषय पढ़ेंगे ।

11- विद्यार्थी जानते है कि परीक्षा में किस प्रकार के प्रश्न पूछे जायेंगे ।

12- अध्यापक विद्यार्थियों को पहले से बता देते हैं कि प्रतिदिन उन्हें कौन कौन सी पुस्तकें लानी हैं ।

13- विद्यार्थी अपनी कक्षा का कार्य करने में आनन्द का अनुभव करते हैं ।

14- बहुत से विद्यार्थी कक्षा से असन्तुष्ट रहते हैं ।

15- कक्षा के बाद विद्यार्थियों को सन्तोष का अनुभव होता है ।

16- जिन विद्यार्थियों की रूचि पढ़ाई में नहीं होती है वे विद्यालय से प्रतिदिन भागते हैं ।

17- विद्यालय में प्राचार्य व अध्यापकों की यही कोशिश रहती है कि उनके विद्यालय का परीक्षाफल आसपास के विद्यालयों से अच्छा हो ।

18- कक्षा में विद्यार्थी आपस में एकदूसरे के साथ ही प्रतिस्पर्धा रखते है ।

19- कक्षा के कुछ विद्यार्थी सदैव दूसरों से अच्छा बनने की कोशिश करते हैं ।

20- बहुत से विद्यार्थी एक दूसरे को सहयोग देने की कोशिश नहीं करते ।